

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. (Currently Amended) Electromechanical valve control actuator for internal combustion engines, comprising an electromagnet ~~(200, 300, 400, 500, 600, 700, 1006)~~ with a magnet ~~(202, 204, 206, 302, 402, 502, 702, 1001, 1002)~~ and with a mobile magnetic plate ~~(210, 310, 610, 710)~~ moving into the vicinity of the electromagnet, the magnet ~~(202, 204, 206, 302, 402, 502, 702, 1001, 1002)~~ being located on a surface of the electromagnet ~~(200, 300, 400, 500, 600, 700, 1006)~~ opposite the plate ~~(210, 310, 610, 710)~~, characterized in ~~that~~wherein the electromagnet ~~(200, 300, 400, 500, 600, 700, 1006)~~ comprises a E-shaped magnetic circuit ~~(208, 304, 404, 602, 704)~~, and the magnet ~~(202, 204, 206, 302, 402, 502, 702, 1001, 1002)~~ ~~being~~is located at the end of a branch of the E-shaped circuit.

2. (Currently Amended) Actuator in accordance with claim 1, ~~characterized in that~~further comprising a rod that is an integral part of the plate, the rod being located outside the E-shaped circuit.

3. (Currently Amended) Actuator in accordance with claim 1 or 2, ~~characterized in that~~wherein a plurality of branches of the E-shaped magnetic circuit are equipped with a magnet respective plurality of magnets.

4. (Currently Amended) Actuator in accordance with claim ~~1, 2 or 3~~, ~~characterized in that~~wherein at least one said ~~magnet~~of the magnets has a cross section (S_a) larger than ~~[[the]]~~a cross section ($2S_e$) of the branch on which ~~[[it]]~~the at least one magnet is located.

5. (Currently Amended) Actuator in accordance with ~~one of the claim~~[[s]] 1 through 4 ~~or 2~~, ~~characterized in that~~wherein the plate ~~(610)~~ has a cross section (S_p) that is smaller than ~~[[the]]~~a cross section (S_e) of the end branches ~~(606)~~ of the E-shaped support.

6. (Currently Amended) Actuator in accordance with ~~one of the claim~~[[s]] 1 through 5 ~~or 2~~, ~~characterized in that~~wherein the cross section (S_e) of an end branch of the support is smaller than half the cross section ($2S_e$) of ~~[[the]]~~a central branch of the support circuit.

7. (Currently Amended) Actuator in accordance with ~~one of the claim~~[[s]] 1 through ~~6~~or 2, characterized in ~~that~~wherein [[the]]a cross section (S_e) of [[the]]a junction between an end branch of the ~~support~~E-shaped circuit and [[the]]a central branch of the E-shaped ~~support circuit~~ is smaller than half the cross section ($2S_e$) of the central branch of the ~~support circuit~~.

8. (Currently Amended) Internal combustion engine comprising an electromechanical valve control actuator equipped with an electromagnet with a magnet and with a mobile magnetic plate coming into the vicinity of the electromagnet, characterized in ~~that~~wherein the actuator is in accordance with ~~one of the claim~~[[s]] 1 through ~~7~~or 2.